5. Medium according to one of Claims 1 to 4, characterized in that the LCST of a significant fraction of the said segments with LCST is between T1 and T2.

6. Medium according to one of the preceding claims, characterized in that all the segments with LCST represent between 2% and 25% and preferably between 5 and 15% of the total average molar mass of the copolymers.

7. Medium according to one of the preceding claims, characterized in that all or some of the blocks with LCST possess along their skeleton an average number of atoms greater than 75, or an average molecular mass greater than 2 500.

8. Medium according to one of Claims 1 to 7, characterized in that all or some of the said polymers exist in the form of linear block polymers.

9. Medium according to one of Claims 1 to 7, characterized in that all or some of the said polymers exist in the form of comb copolymers whose skeleton consists of one or more segments which are soluble in the electrolyte at the temperatures T1 and T2.

10. Medium according to one of the preceding claims, characterized in that all or some of the copolymers possess an average number of segments with LCST per chain greater than 2 and preferably greater than 5.

11. Medium according to one of the preceding claims, characterized in that all or some of the copolymers possess a molecular mass greater than 30 000 or a number of atoms along the main skeleton greater than 2 000.

12. Medium according to one of the preceding claims, characterized in that all or some of the copolymers possess a molecular mass of between 50 000 and 3 000 000 or a number of atoms along the main skeleton of between 2 500 and 100 000.

13. Medium according to one of the preceding claims, characterized in that all or some of the copolymers possess an average number of atoms along a section of soluble segment, between two consecutive binding points of the said soluble segment with segments with LCST, greater than 210.

14. Medium according to one of the preceding claims, characterized in that all or some of the said polymeric segments with LCST are derived from one or more copolymers chosen from:

- polyvinyl alkyl ethers,
- hydroxyalkyl celluloses,
- homopolymers of ether oxides,
- random and block copolymers of ether oxides,
- alkylene homo- and copolymers, and
- polyacrylic derivatives derived from the homopolymerization or copolymerization of monomers chosen from acrylic and methacrylic acids, alkylacrylates and methacrylates, N-alkyl-acrylamides or -methacrylamides, N',N-dialkyl-acrylamides or -methacrylamides, aryl-acrylamides or -methacrylamides and alkylaryl-acrylamides or -methacrylamides.

15. Medium according to one of the preceding claims, characterized in that the polymeric segment(s) soluble at the temperatures T1 and T2 consist of at least one polymer chosen from polyethers, polyesters, soluble random copolymers and homopolymers of the polyoxyalkylene, polysaccharides, polyvinyl alcohol, polyvinylpyrrolidone, polyurethanes, polyamides, polysulphonamides, polysulphoxides, polystyrenesulphonate, substituted or unsubstituted

polyacrylamides or polymethacrylamides which are soluble in the said electrolyte.

16. Medium according to one of the preceding claims, characterized in that the copolymer is chosen from:

- copolymers of the comb copolymer type whose skeleton is of the type including acrylamide, acrylic acid, acryloylaminoethanol or dimethacrylamide and on which there are grafted side segments of the poly(N-alkyl or N,N-dialkyl)acrylamide type, or side segments of the random or block, polyoxyethylene/oxypropylene copolymer or polyoxypropylene type, or side segments of the polyether type

- copolymers of the block copolymer type exhibiting along their skeleton an alternation of segments of the polyoxyethylene type and of segments of the polyoxypropylene type, or an alternation of segments of the polyoxyethylene type and of segments of the polyoxybutylene type or an alternation of segments of polyethylene and of segments of the polyether type which are more hydrophobic than polyoxyethylene.

17. Medium according to one of the preceding claims, characterized in that the copolymer is chosen from

polyacrylamide/poly(N-isopropylacrylamide) (PAM-NIPAM); polyvinylalcohol/poly(N-isopropylacrylamide) (PVA-NIPAM), polyoxyethylene/polyoxypropylene, polyacrylamide/oxyethylene-oxypropylene copolymer, polyacrylamide/polyoxypropylene, polyacrylic acid/polyoxypropylene, polyacrylic acid/oxyethylene-oxypropylene copolymer, polyacrylic acid/poly(N-isopropylacrylamide) and polydimethylacrylamide/poly(N-isopropylacrylamide) (PDMAM-NIPAM).